

**SC186 WG-2  
TIS-B  
Minutes of Joint Meeting with EUROCONTROL  
Brussels, 25 September 2002**

Attendees:

Andrew Zeitlin, WG-2 co-chair	MITRE/CAASD
Ken Staub, WG-2 co-chair	Trios
Gilles Caligaris	EUROCONTROL
Tony Warren	Boeing
Bill Petruzell	FAA AFS
David Bowen	QinetiQ
John Shaw	QinetiQ
Jean-Etienne Deraet	Thalys ATM
Goran Hasslar	LFV

This one-day meeting followed a two-day joint Plenary of SC186 and EUROCAE WG51. That meeting had discussed development plans for separate and joint ASA MASPS, and an agreed phasing of applications. A “Package 1” set of applications included the visual acquisition applications that the WG2 TIS-B MASPS plans to support. Each SC186 Working Group had presented a progress report, including the presentation entitled “WG2 Progress Sept. 2002” given by Andy.

Andy opened the meeting with introductions. An agenda was agreed, where available papers would be discussed according to their utility in aiding the exchange and harmonization of information.

Andy reviewed part of the progress report cited above, and presented a second briefing entitled “TIS-B Issues 9.02”, which gave more detail regarding the changes being developed to the draft TIS-B MASPS. Since there was considerable interest in the new Integrity topic, it was agreed to return to this later in the day.

David suggested that TIS-B be advertised as more than merely a gap-filler. It also can be viewed as a “service extender”, where it provides surveillance not otherwise available, e.g., on the surface. A special example of this could be to detect and alert against obstacles on the runway. These could be observed using primary radar.

Goran presented a short briefing on the role of TIS-B in the NUP-2 program. Unlike the FAA/RTCA and EUROCONTROL approaches, NUP is treating TIS-B as a temporary service, for the purpose of gap-filling. It will provide surveillance to support applications being developed by the various Tiger Teams. Another difference is in design. Unlike the WG2 MASPS, the NUP TIS-B design does not strive for complete message compatibility; instead, it seeks to conserve bandwidth for TIS-B reports by sending a

geographical reference point in its Management Message, and sending only offsets in the individual target messages.

Next, the EUROCONTROL views were considered. There was not time to go through the architecture and functional requirements documents, but Gilles observed that they were largely in line with WG2. EUROCONTROL had compiled a list of differences and issues (see “MASPS vs EURO Reqs”), and these were discussed.

<b>Issue</b>	<b>Result of Discussion</b>
1. policy regarding requiring ADS-B equipage	Our MASPS does not require it, but our Principles section encourages it
2. should we say an aircraft is “guaranteed” to receive TIS-B messages?	Simply a matter of clarifying that service is expected. We don’t think “guaranteed” is correct.
3. unclear whether one or multiple reports is sent when TIVs are nested	WG2 to reexamine Fig. 1-6 and clarify this point
4. How can TIS-B detect and react to inadequate ADS-B air-air communication?	As we decided at the Plenary WG session, we need to clarify with an example such as buildings on the surface creating a shielded region
5. Intent not likely to be required	We are just including this as a placeholder for future applications
6. Specifically list obstacles as potential targets	We do provide for this elsewhere
7. The contents of the (internal) track report are too design oriented in requiring coding of NAC, NIC, SIL	We had decided these quantities normally would be determined prior to the Distribution function. We did not intend to constrain the internal formatting
8. Sensor Adaptation is a specific design approach; the requirement should be for accuracy	We should reconsider whether this should be a requirement
9. Unclear what is being said about overlapping coverage	Clarify that we meant to advise keeping the overlap region small
10. Do not expect to generate requirements of the type in Table 3-1	Consider moving this example to Appendix
11. Differences in contents of Target Report	IMPORTANT PHILOSOPHICAL DIFFERENCE – regarding contents and grouping of report elements
12. Optional items in target reports	Consider changing “optional” to “when available”
13. same as item 9.	
14. EUROCONTROL would send multiple reports for overlapping service volumes	PHILOSOPHICAL DIFFERENCE – we decided not to do this. We should give examples describing meeting the requirements of two

	services, perhaps with the most stringent aspects of each
15. Do not plan to dynamically adjust the service volume	We only give this as an option
16. Differences in Service Status	We agreed at Plenary WG to consider clarifying
17. Do not plan to filter targets based on flight plan	We identified this as one means to learn of anonymous or secure aircraft that should not be broadcast
18. Have not decided what Link Status is required	We think we are listing the appropriate items

Tony Warren presented a briefing on TIS-B Integrity Monitoring. This has been the focus of one of the WG2 subgroups created since the Plenary meeting. Development of this material is ongoing, and it is anticipated that an Appendix will be created for the MASPS to recommend good design practices.

Ken and Andy thanked Gilles and EUROCONTROL for hosting this meeting.